

Appl. No. 10/607,684
Atty. Docket No. CM2682L
Amdt. dated September 22, 2004
Reply to Office Action of 6/23/2004
Customer No. 27752

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A method of manufacturing filled and sealed pouches using an apparatus comprising

a conveyor support (1, 2, 17) and a conveyor (8, 10, 11, 21) which travels over the support and which

has an upper surface which comprises a longitudinal side margin (46) along each side and a plurality of

moulds (23) between the side margins, means (1, 14 and 24) for thermoforming a film into the mould to

form pouches and means for filling and sealing the pouches, wherein the method comprises applying

thermoformable film (29) on to the upper surface of the conveyor (8, 10, 11, 21), forming the pouches by

thermoforming the film (29) into the moulds (23) while holding each side edge (45) of the film (29) to a

side margin (46) of the conveyor to resist inward movement of the side edges (45), and filling and sealing the pouches and then discharging the pouches from the conveyor, wherein the holding of the side edges (45) of the film to the side margins (46) of the conveyor is by under-pressure applied to the underside of the film (29) through a plurality of holding

orifices (44) which extend up through the conveyor and into each side margin (46) wherein the outlet from each holding orifice (44) is surrounded by material having a coefficient of friction of at least 0.3 and wherein said holding orifices (44) and which create

friction forces which are sufficiently large to resist inward movement of the side edges (45) of the film

during the thermoforming.

2. (Previously presented) A method according to claim 1 in which the holding orifices (44) are arranged along each edge portion in a band (42) over which they are transversely distributed.

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3. (Previously presented) A method according to claim 2 in which the holding orifices (44) are arranged in two or more longitudinal rows within each band.
4. (Previously presented) A method according to claim 1 in which the separation between adjacent holding orifices (44) is from about one to about five times the diameter of the orifices (44).
5. (Currently amended) A method according to claim 1 in which each holding orifice (44) has a diameter of from about 1 mm to about 5mm.
6. (Cancelled)
7. (Currently amended) A method according to claim 6 1 in which the material surrounding the holding orifice (44) has a Shore hardness (grade A) of from about 10 to about 90.
8. (Currently amended) A method according to claim 6 7 in which the material is formed of silicone rubber.
9. (Previously presented) A method according to claim 1 in which the thermoforming is by under-pressure applied to the moulds (23).
10. (Currently amended) Apparatus for manufacturing filled and sealed pouches comprising a conveyor support (1, 2, 17) and a conveyor (8, 10, 11, 21) which travels over the support and which has an upper surface which comprises a longitudinal side margin (46) along each side and a plurality of moulds (23) between the side margins, means (1, 14 and 24) for thermoforming a film into the moulds to form pouches, means for filling the pouches, and means for sealing the pouches and means for holding each side edge (45) of the film (29) to a side margin (46) of the conveyor to resist inward movement of the side edges (45), wherein the means for holding each side edge (45) of the film (29) to a side margin (46) of the conveyor comprises a plurality of holding orifices (44) which extend up through the conveyor and into each side margin (46), wherein the outlet from each holding orifice (44) is surrounded by a material having a coefficient of friction of at least 0.3, and means for applying under-pressure to the underside of the film through the holding orifices and thereby creating friction forces which are sufficiently large to resist inward movement of the side edges (45) of the film (29) during thermoforming of the film into the moulds.

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11. (Previously presented) Apparatus according to claim 10 including means for applying an under-pressure into the moulds and thereby thermoforming the film into the moulds.

12. (Previously presented) Apparatus according to claim 11 comprising also a vacuum supply apparatus, a row of vacuum apertures leading from the vacuum supply apparatus and discharging through the conveyor support, vacuum moulding orifices extending through the conveyor into each of the vacuum moulds for transferring under-pressure from the vacuum apertures to each of the moulds and wherein the vacuum holding orifices extend through the conveyor into the side margins of the conveyor for transferring under-pressure from the vacuum apertures to the side margins of the conveyor and the conveyor comprises a belt (8) which slides over and seals against the conveyor support (2).

13. (Previously presented) Apparatus according to claim 10 in which the conveyor is formed of mould plates (21) fitted within platens (10) mounted on a belt (11), wherein the moulds (23) are formed in the mould plates (21).